



Retorts and Dragons: The Creation of Chemical Branch Insignia

By Mr. Kip Lindberg

When the United States entered World War I, it found itself woefully unprepared for the experience. Twelve other nations, including Portugal, could field more combatants than the small, peacetime American Army. The US military had only a pittance of modern implements, such as machine guns and rapid-fire artillery, necessary for an industrial war. Most obvious, however, was how unprepared the Nation was to engage in the chemical warfare taking place on the battlefields of Europe.

The United States had only a few specialists trained in gas warfare and no single organization prepared to design, produce, and distribute chemical munitions, detection and protective equipment, or alarms. Four Army branches and one civilian agency (Bureau of Mines) were given the task of providing these services, in addition to their primary duties. However, the pressure of wartime requirements, combined with the inherent problems of accomplishing primary missions, made interbranch cooperation impossible. Military officials quickly discovered that a successful gas warfare program required consolidation under a single organization.

The Gas Service Section of the American Expeditionary Force (AEF) was created to shepherd the United States in the quest to become a world leader in chemical warfare. And with this specialization came the need for a new designating insignia. Approved in December 1917, the new insignia—a benzene ring superimposed in the center of crossed retorts—reflected the scientific origin of chemical warfare. The retort is a universally recognized article of laboratory equipment, dating back to the beginning of chemistry, and is necessary to extract volatile products from liquids through the application of heat. The pairing of retorts followed the tradition of crossed insignia previously established by the Infantry, Cavalry, and Artillery Corps. The hexagonal design of the benzene ring was also symbolic of chemistry and mirrored the chemical model of benzene (with its bonding of six carbon and hydrogen atoms).¹

The initial, limited production of officer insignia was cast in bronze and designed to be worn on the sides of the stand-up collar of the officer M1912 tunic. The height of the insignia was specified at 3/4 inch; however, no length was given, leading to variations among manufacturers. For enlisted personnel, an embroidered, cloth version bearing the crossed retorts and benzene ring was produced for sleeve display. This was soon supplemented by the same design cast on a 1-inch bronze disk and worn on the stand-up collar opposite the general service “US” disk. Both officer and enlisted insignia were produced in dulled or blackened bronze, making them less conspicuous to the enemy. When the Gas Service Section was redesignated the Chemical Warfare Service (CWS) on 28 June 1918, the insignia was retained.²

But the crossed retorts and benzene ring were not popular with all who wore it. The scientific symbolism was lost to some of the CWS Soldiers serving overseas on the battlefields of Belgium and France, especially those whose primary role was to drop gas munitions on enemy positions. The Chief of the Overseas Gas Service Section, Lieutenant Colonel Amos Fries, voiced their dissent: “We in the field,” he wrote, “emphasized the fighting value of chemical warfare” However, in the United States, a large proportion of the officials in control were research and development, production, and chemical engineers. They looked upon the CWS as predominantly chemical and developed the insignia from that point of view.³

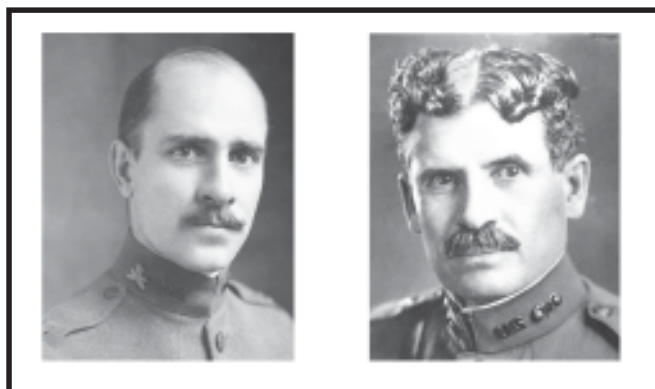
Fries petitioned his commander, Major General William Sibert, Chief of the CWS, to redesign the insignia. Sibert championed the cause, writing on 12 August 1918 to the Commander of the AEF, General John J. Pershing, that “the overseas section, which includes the Division gas officers and the gas and flame troops, desires an insignia a little more warlike than that of the old Chemical Service sector. The most effective way of delivering gas is through the gas shell [Therefore,] it is recommended that the

insignia of the Chemical Warfare Service be crossed gas shells surmounted by a dragon.” The idea met with Pershing’s approval, and the following month he forwarded the recommendation to the Adjutant General with his endorsement. A sample insignia—designed by the prestigious jewelry firm of Bailey, Banks, and Biddle—was cited by Pershing as the example to follow.

The official response was swift. On 23 September 1918, the Secretary of War disapproved the request, stating that “. . . in order to enable officers to concentrate their attention upon matters which are of vital importance in preparation for the present war, [we] will give no consideration to proposed changes in organization, equipment, uniform, or anything else during the war which are not of the above-mentioned importance in preparation for or in the war.”^{4, 5}

News of the disapproval was slow to reach France (or at least slow to be enforced). On 25 October 1918, the *Stars and Stripes*, the official newspaper of the AEF, printed the following announcement regarding the redesign of the CWS insignia: “The old insignia was so highly symbolical that it didn’t hardly symbolize anything to unscientific and war-hardened minds. Its two crossed chemical retorts looked to the uninitiated like the irons of golf sticks, and were reminiscent of the ancient pottery and clay pipes of the mound builders. Also, officers thought crossed retorts were not sufficiently warlike. After the chemistry end of their work is done, they have to do the mechanics of making shells—with the business of making deadly things to throw at the Germans. They wanted an insignia that had something fierce about it. And now they’ve got it!”⁶

But that was not quite the case. Anticipating that approval of the proposed design was forthcoming, contracts had been placed and boxes of the “dragon over shells” officer insignia were already arriving in France and being sold through the AEF quartermaster office. The two enlisted versions—the cloth patch for Privates First Class and the 1-inch cast bronze collar disks—were also placed in production, although not in the large numbers produced for officer insignia. Soon the crossed retorts and benzene ring and the dragon-over-shells insignias were being worn throughout France. And they began appearing in the United States, sported by returning CWS personnel. To add to the confusion, most of the officers of the 1st Gas and Flame Regiment (which had been the 30th Engineer Regiment prior to July 1918) refused to replace their castle



Examples of collar insignia

insignia with either of the CWS insignias. By the fall of 1918, three different insignias were being worn by members of the CWS.^{7, 8}

The end of the war brought the wearing of the dragon-over-shells insignia to an end. As the CWS dropped from its wartime strength of 20,518 officer and enlisted personnel to less than a tenth of that number by 1920, most of the unapproved insignia had dropped from sight, going home with departing personnel, destined to be forgotten in dark trunks and dusty attics. Some, however, were retained in the collection of the US Army Chemical Corps Museum at Fort Leonard Wood, Missouri, where they continue to illustrate the early design tribulations of Chemical Corps insignia. 🐉

Endnotes

¹War Department, Change 1, Special Regulation 42, 29 December 1917.

²William K. Emerson, *Encyclopedia of United States Army Insignia and Uniforms*, University of Oklahoma Press, 1996, pp. 375–378.

³“Recollections of Major General Amos A. Fries (Retired), former Chief of the Chemical Warfare Service,” *Chemical Warfare Service Veterans Association Bulletin*, September 1942.

⁴Cablegram message No. 1684 from General John J. Pershing, Commanding General of the American Expeditionary Force, to the Army Chief of Staff, 16 September 1918.

⁵Memorandum from the Adjutant General of the Army to General John J. Pershing, Commanding General of the American Expeditionary Force, France, 26 September 1918.

⁶“New Chemical Insignia,” *Stars and Stripes*, Vol. 1, No. 38, 25 October 1918, p. 5.

⁷US Army Institute of Heraldry Fact Sheet, circa 1965, showing AEF quartermaster price lists, France, 1918.

⁸William K. Emerson, *Encyclopedia of United States Army Insignia and Uniforms*, University of Oklahoma Press, 1996, pp. 375–378.

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